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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,761	05/31/2001	Michael T. Portwood	1286-02	6411

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EXAMINER

RAMPURIA, SATISH

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/681,761

Applicant(s)

PORTWOOD, MICHAEL T.

Examiner

Satish S. Rampuria

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/2/01, 6/18/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the application filed on 05/31/2001.
2. Claims 1-42 are pending.

Information Disclosure Statement

4. An initialed and dated copy of Applicant's IDS form 1449, Paper No. 02 and 03, are attached to the instant Office action.

Claim objections

5. Claims 5, 11, 17, 23, 34, and 39-42 are objected to because of the following informalities:

Regarding claims 5 and 17, on line 23 and 2 respectively, the word "were" should be "where".

Regarding claims 11, 23, and 34, on line 10, 25, and 30 respectively, the word "accessability" should be "accessibility".

Regarding claim 39, on line 15, the word "other the" should be "other than".

Regarding claims 40-42, it appears these claims should be dependent on claim 36 rather than claim 1.

Claim Rejections - 35 USC § 112, second paragraph

6. Claims 1-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Clarification and/or correction are required.

Regarding, claims 1, 13, and 25, on lines 3, 18, and 33, respectively, the limitation, “learn from” is unclear as to learn what from the external object.

Regarding, claims 4, 5, 16, and 17, on lines 19, 23, 33, and 2, respectively, the limitation “more than one” is unclear as to how many external objects application will interact.

Regarding, claims 28, on line 11, the limitation “two or more” is unclear as to description of a window will interact how many external objects.

Regarding, claims 12, 24, and 35, on lines 13, 28, 33, respectively, the limitation “multiple computer platform” is unclear as to how many computer platform, format is capable of running.

The rejection of the base claim is necessarily incorporated into the dependent claims.

Claim Rejections - 35 USC § 101 Utility

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are non-statutory because they recite components of creating an application, representing functional descriptive material without a computer readable medium or computer implemented, program per se are not tangibly embodied. Claims 1-42 thus amounts to only abstract idea and are nonstatutory.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-9, 13-21, and 25-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,381,548 to Matsuo, hereinafter called Matsuo, in view of US Patent No. 6,117,184 to Sakamoto et al., hereinafter called Sakamoto.

Per claims 1, 13, and 25:

Matsuo discloses:

- A method for creating an application which interacts with at least one external object (col. 1, lines 38-39 “present invention to provide... apparatus... automatically generating programs” and col. 1, lines 43-44 “automatically generating... program by... selecting and combining a plurality of ... program modules”)
- combine the information obtained from the external object with selected default parameters (col. 3, lines 25-27 “lines interconnecting the boxes are drawn according to names of preceding and following modules of each of the modules”) sufficient to describe a visual displays for each accessor method and field in said external object (col. 3, lines 27-29 “the contents of the connection data base 16, to thereby draw the directed network of FIG. 4”)

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- store the description of the visual display (col. 3, lines 7-10 “The connection data base 16 stores connection relationships among the modules and display positions of the modules, as shown in FIG. 3”)
- using such stored description (col. 3, lines 7-8 “connection data base 16 stores connection relationships among the modules), build a software application having such visual displays which interacts with said external object (col. 4, lines 9-12 “program generation unit 20 outputs a program... in accordance... fixed path received from the path determination unit 18. FIG. 8 shows an operation of the program generation unit 20”)

Matsuo does not explicitly disclose learn from the object's interface information concerning the methods and fields contained in said external object by reflection.

However, Sakamoto discloses in an analogous computer system learn from the object's interface information (col. 2, lines 9-11 “navigation program outputs parameters to guide a combination of program modules and a connect module”) concerning the methods and fields contained in said external object by reflection (col. 2, lines 11-13 “combination of program modules is generated by specifying the parameters, and the generated connect module is stored in the memory”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of output the program by combination of modules/objects stored in the memory as taught by Sakamoto into the method of automatically generating program as taught by Matsuo. The modification would be obvious because of one of

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ordinary skill in the art would be motivated combine the objects stored in the memory to generate program to not to create new objects as suggested by Sakamoto (col. 1, lines 45-50).

Per claims 2, 14, and 26:

The rejection of claim 1 is incorporated, and further, Matsuo discloses:

- wherein said description of the visual display is stored as a serialized object (col. 2, lines 48-49 “path is sequentially fixed from the initial state to the end state”)

Per claims 9, 21, and 32:

The rejection of claim 1 is incorporated, and further, Matsuo discloses:

- wherein the description of the visual object defines text fields and dialogs for interaction with the methods and fields of the external object (col. 3, lines 16-18 “display control unit... a directed network... shown in FIG. 4... of the display/input device 10. FIG. 5 shows the initial operation of the display control unit 12”)

Per claims 3, 4, 5, 15-17, 27, and 28:

The rejection of claim 1 is incorporated, and further, Matsuo does not explicitly disclose the resulting application will have a window which is connected to the external object.

However, Sakamoto discloses in an analogous computer system the resulting application will have a window which is connected to the external object (col. 3, lines 18-21 “connector generation 106 generates a module for connecting modules based on the guide result, writes the generated module”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of connecting modules by connector generator based on guide result as taught by Sakamoto into the method of automatically generating program as taught by Matsuo. The modification would be obvious because of one of ordinary skill in the art would be motivated connect objects/modules to the resulting module to create an application as suggested by Sakamoto (col. 1, lines 45-50).

Per claims 6, 7, 18, 19, 29, and 30:

The rejection of claim 1 is incorporated, and further, Matsuo does not explicitly disclose where said description of the visual display is edited prior to the building of the application.

However, Sakamoto discloses in an analogous computer system where said description of the visual display is edited prior to the building of the application (col. 3, lines 11-16 “program edition 104 reads, writes and edits program information 109 to be edited and module information 108 which will become an elements of the program”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of editing program information as taught by Sakamoto into the method of automatically generating program as taught by Matsuo. The modification would be obvious because of one of ordinary skill in the art would be motivated to edit the description prior to build the program to get appropriate result from the application as suggested by Sakamoto (col. 1, lines 45-50).

Per claims 8, 20, and 31:

The rejection of claim 7 is incorporated, and further, Matsuo does not explicitly disclose wherein said programming code manipulates an external object.

However, Sakamoto discloses in an analogous computer system wherein said programming code manipulates an external object (col. 2, lines 2-4 “y guiding the combination of the program modules stored in the memory by manipulating the program modules visually displayed on the display device”).

The feature of manipulating objects would be obvious for the reasons set forth in the rejection of claim 7.

11. Claims 10, 22, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo, in view of US Patent No. 5,485,601 to Ching, hereinafter called Ching.

Per claims 10, 22, and 33:

The rejection of claim 9 is incorporated, and further, Matsuo does not explicitly disclose wherein the description of the visual object allows the use of labels for the text fields and dialogs in alternative human languages.

However, Ching discloses in an analogous computer system wherein the description of the visual object allows the use of labels for the text fields and dialogs in alternative human languages (col. 10, lines 34-36 “All the multiple-choice and text questions in the program generator are in human language, be it English, Chinese, German, Korean, etc”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of using alternative human language in the program generator questions as taught by Ching into the method of automatically generating

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program as taught by Matsuo. The modification would be obvious because of one of ordinary skill in the art would be motivated to have the feature of using alternative human language to build the program as suggested by Sakamoto (col. 2, lines 34-46).

12. Claims 11, 12, 23, 24, and 34-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo, in view of US Patent No. 6,654,038 to Gajewska et al., hereinafter called Gajewska.

Per claims 11, 23, and 34:

The rejection of claim 9 is incorporated, and further, Matsuo does not explicitly disclose wherein the description of the visual object provides for the use of accessibility features for disabled users.

However, Gajewska discloses in an analogous computer system wherein the description of the visual object provides for the use of accessibility features for disabled users (col. 4, lines 58-64 "A system is referred to as "accessible" if it can be used by a disabled user. Many levels... of accessibility exist given the many types of disabilities that... considered... for example, a system accessible to blind users, the user must be able to navigate every component on a screen via the keyboard so that the component's description can be read out by a screen reader").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of using a system which is accessible by disabled users as taught by Gajewska into the method of automatically generating program as taught by Matsuo. The modification would be obvious because of one of ordinary skill in the art

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would be motivated to have the feature of accessing a system by disable users to generate/develop the program as suggested by Gajewska (col. 2, lines 40-64).

Per claims 12, 24, and 35:

The rejection of claim 1 is incorporated, and further, Matsuo does not explicitly disclose wherein the description of the visual object is in a format which allows it to be used on multiple computer platforms.

However, Gajewska discloses in an analogous computer system wherein the description of the visual object is in a format which allows it to be used on multiple computer platforms (col. 2,, lines 5-7 “The cross-platform architecture of the Java™ programming language is illustrated in FIG. 3, which shows how the Java™ language enables cross-platform applications over the Internet. In the figure, the computer 3 running the Solaris platform and the computer 5 running the Windows 98 platform are each provided with a Java™ virtual machine 21”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of using a language which support multiple platforms as taught by Gajewska into the method of automatically generating program as taught by Matsuo. The modification would be obvious because of one of ordinary skill in the art would be motivated to use a language which support multiple platforms to develop application for any platform computer as suggested by Gajewska (col. 1, lines 11-24).

Per claim 36:

Matsuo discloses:

- A method for creating an application (col. 1, lines 38-39 “apparatus for automatically generating programs”) from a serialized description of the application which interacts with at least one external object (col. 2, lines 48-49 “path is sequentially fixed from the initial state to the end state”)
- using the stored description (col. 3, lines 7-8 “connection data base 16 stores connection relationships among the modules), build a software application having such visual displays which interact with said external object (col. 4, lines 9-12 “program generation unit 20 outputs a program... in accordance... fixed path received from the path determination unit 18. FIG. 8 shows an operation of the program generation unit 20”)

Matsuo does not explicitly disclose which application operates independently of the software which creates the application.

However, Gajewska discloses in an analogous computer system which application operates independently of the software which creates the application (col. 4, lines 16-18 “The invention described... implemented on virtually any type of computer regardless of the platform being used”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of using support multiple platforms where application independently runs as taught by Gajewska into the method of automatically generating program as taught by Matsuo. The modification would be obvious because of one of ordinary skill in the art would be motivated to build application which will run independently once build on any platform computer and as suggested by Gajewska (col. 1, lines 11-24).

Per claims 37, 38, 40, 41, and 42:

The rejection of claim 37 is incorporated, and further, Matsuo discloses:

- wherein said external object is contained on a computer other than the computer on which the application is built (col. 1, lines 47-49 “storing connection relationships among the prepared program modules so that the prepared program modules and the relationships form a network structure”)

Per claim 39:

The rejection of claim 37 is incorporated, and further, Matsuo discloses:

- wherein said description is constructed on a computer other than where the external object resides (col. 3, lines 7-8 “connection data base 16 stores connection relationships among the modules)

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent is cited to further show the state of the art with respect to automatic generation of applications.

US Patent No. 6,571,388 to Venkatraman et al.

US Pub. No. 2004/0015862 to Dunn

US Patent No. 6,408,403 to Rodrigues et al.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satish S. Rampuria whose telephone number is 703-305-8891. The examiner can normally be reached on 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Satish S. Rampuria

Patent Examiner

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06/01/2004


ANIL KHATRI
PRIMARY EXAMINER